

SECRET

29 April 1963

MEMORANDUM FOR: Assistant for Plans and Development

THROUGH : Executive Secretary, TDC

SUBJECT : Staff Study [redacted] Proposal
for Extension of Perceptron Applicability to Automatic
Photointerpretation

REFERENCE : [redacted] Proposal to the Office of Naval Research, dated 14 Jan. 1963

1. PROBLEM:

To alleviate the anticipated photointerpretation workload by partial automation.

2. FACTS:

a. In March 1963, the subject proposal was forwarded by ONR to this staff for evaluation. At the same time it was disclosed that neither ONR nor BuWeps would be capable of continued support of this development. It was explained that this withdrawal was on the basis of the fact that no imminent hardware development was apparent. However, it was the opinion of technical representatives of both agencies that this line of development continued to show more promise than any other in the field of automatic image recognition.

b. On the 19th of March a briefing concerning the development of the PERCEPTRON was given to members of the NPIC Plans and Development Staff by technical representatives of the [redacted]. As a result of this briefing investigation into the status of other developments in this field were initiated. In this regard two visits were made to [redacted] and several reports concerning other related systems developments were studied. Finally on the 23rd of April a visit to RADC was arranged in order to compare system evaluations with those of the RADC scientist charged with the responsibility for cognizance of developments in this realm.

a. On the basis of these and other investigations the following facts were ascertained:

(1) The disproportionate relationship in manpower requirements for the acquisition and exploitation phases of the photo reconnaissance task indicates a real need for automation in the exploitation phase. This is particularly true if anticipated developments in the acquisition phase materialize.

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Declass Review by NGA.